THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A method of determining a risk for myocardial infarction, or a propensity therefor in an individual comprising:

   (c) obtaining a biological sample from an individual; and

   (d) analysing said biological sample for the presence of a variant of a gene encoding Factor II, Factor V, Factor XIII or a combination thereof.

2. The method according to claim 1, wherein the sequence of the Factor II gene comprises SEQ ID NO:1.

3. The method according to claim 1, wherein the sequence of the Factor V gene comprises SEQ ID NO:2.

4. The method according to claim 1, wherein the sequence of the Factor XIII gene comprises SEQ ID NO:3.

5. The method according to claim 1, wherein said variant of Factor II is FIIG20210A.

6. The method according to claim 1, wherein said variant of Factor V is FVL.

7. The method according to claim 1, wherein said variant of Factor XIII is FXIIIV34L.

8. A method for the detection of defects in a multi-stage, multi-factorial biochemical reaction system, wherein the defects are associated with an increased risk of myocardial infarction in an individual, comprising the steps of:

   e) screening for suitable patients at risk of myocardial infarction, wherein said screening is conducted on the basis of a family history or individual case history;

f) obtaining a suitable biological sample from the individual;

g) determining the presence of variant genetic elements, the gene products of said variant genetic elements, or altered physiochemical activities of said gene products known to be correlated with myocardial infarction; and

h) determining the risk to the individual of myocardial infarction.

9. The method as in claim 1, wherein the multistage, multifactorial biochemical reaction system is selected from the group comprising the fibrinolysis system, the clotting system, and the complement system.

10. A method for determining whether an individual is at an increased risk for myocardial infarction, comprising detecting the presence or absence of mutations in genetic elements, aberrant gene products of genetic elements or altered physiochemical activity of the gene products of genetic elements, wherein said genetic elements are correlated with an elevated risk for myocardial infarction.

11. The method according to claim 8, wherein the genetic elements known to be correlated with myocardial infarction are at least two genes selected from the group comprising the genetic elements encoding Factor II, Factor V, and Factor XIII.

12. The method according to claim 9, wherein the sequence of the Factor II gene comprises SEQ ID NO:1.

13. The method according to claim 9, wherein the sequence of the Factor V gene comprises SEQ ID NO:2.

14. The method according to claim 9, wherein the sequence of the Factor XIII gene comprises SEQ ID NO:3.

15. The method according to claim 9, wherein the presence of at least two of SEQ ID NO:1, SEQ ID NO:2, and SEQ ID NO:3, is indicative of an increased risk for myocardial infarction in said individual.

16. A method for determining whether an individual is at an increased risk for myocardial infarction, comprising determining Factor II and Factor XIII genetic element sequences of an individual, whereby the presence of a G20210A mutation in a Factor II gene sequence, and the presence of a V34L mutation in a Factor XIII gene sequence is indicative of an increased risk for myocardial infarction in said individual.

17. A method for determining whether an individual is at an increased risk for myocardial infarction, comprising determining gene products of Factor II and Factor XIII genetic elements of an individual, whereby the presence of FIIG20210A and FXIIIV34L gene products is indicative of an increased risk for myocardial infarction in said individual.

18. A method for determining whether an individual is at an increased risk for myocardial infarction, comprising determining physiochemical activity of gene products of the Factor II and Factor XIII genetic elements of an individual, whereby the presence of FIIG20210A and FXIIIV34L gene products' physiochemical activity is indicative of an increased risk for myocardial infarction in said individual.

19. A kit for determining whether an individual is at an increased risk for myocardial infarction, comprising oligonucleotides specific to the variant region of the alleles of interest or to sequence flanking the variant region and optionally instructions for use.